

4/186/61/003/001/017/020  
A05/A129

The yield of argon isotopes...

that the ratio  $A_{\text{Ar}^{38}}/A_{\text{Ar}^{36}}$  can be used for calculating the cosmic age of meteorites by measuring the isotopic composition of argon formed from two targets of various composition and irradiated with 660-MeV-energy protons. They further establish that the activity,  $\lambda_{\text{Ar}^{36}}$ , of  $\text{Ar}^{36}$  found in the meteorites is formed from the decay of  $\text{Na}^{24}$  and  $\text{Ar}^{36}$ . The McLean monitor was used for measuring the argon quantities and the isotopic composition analysis of the argon was performed on a 170-104 (MIMIC) mass-spectrometer. The double-beam method for measuring the isotopes is used; the results of the measurements are given in Table 1. The calculations of the absolute values of the cross-sections of the argon nuclear reaction were conducted according to the following formula:

$$\frac{A_{\text{Na}^{24}}}{A_{\text{Ar}^{36}}} = \frac{\lambda_{\text{Na}^{24}}}{\lambda_{\text{Ar}^{36}}} \quad (1),$$

where  $A_{\text{Na}^{24}}$  is the measured activity of the monitor,  $\lambda_{\text{Na}^{24}}$  the measured quantity of  $\text{Ar}^{36}$ . Table 2 lists the values of the formation cross-sections of argon isotopes. The authors were further

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The yield of argon isotopes ...

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able to select an empirical formula which would connect the values of the formation cross-section of the argon isotope. They show that the formation of argon isotopes does not depend within the limits of the experimental error on the chemical composition of the target. The empirical formula selected was:

$$\delta(A) = e^{-R(z-SA)^2} \quad (2), \text{ where } R = 2.60, S = 0.475, z = 18,$$

A the mass number. The graphical presentation of Formula 2, including the experimental data, is given in curve 1 of the graph. Curve 2 is a graphical representation of Rudstam's (Ref 7) formula for Z = 18:

$$\delta(A, 18) = e^{[PA-Q-R(18-SA)^2]} \quad (3), \text{ where } P = 0.209, Q = 8.54,$$

R = 1.40, S = 0.466, A-mass number. Curve 1 is said to have two characteristic features: 1) a wide dome-like shape, characteristic for radiochemical investigations of reaction products of deep fission and 2) the maximum of the curve is located close to the mass number 38, i.e., exactly on the line of stability of the nuclei in this region. The authors point out that an

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The yield of argon isotopes ...

<sup>238U</sup>  
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increase in the content of cosmogenic products for those parts of meteorites having troilite and shreibergite in their composition is still an unsolved problem requiring further investigation. There are 2 tables, 1 graph and 9 references: 4 Soviet-bloc, 5 non-Soviet-bloc.

Table 1:

No of target	Ar <sup>36</sup> (in cm <sup>3</sup> /g •10 <sup>-9</sup> )	Ar <sup>38</sup> (in cm <sup>3</sup> /g •10 <sup>-9</sup> )	Ar <sup>39</sup> (in cm <sup>3</sup> /g •10 <sup>-9</sup> )	Ar <sup>38</sup> Ar <sup>36</sup>	Ar <sup>38</sup> Ar <sup>39</sup>
1	12.7 ± 1.5	112 ± 10	54 ± 4	9 ± 1	2.1 ± 0.1
2	2 ± 1	12 ± 3	7 ± 1	9 ± 5	1.8 ± 0.7

Table 2:

No of target	Ar <sup>36</sup> (in mbarn)	Ar <sup>38</sup> (in mbarn)	Ar <sup>39</sup> (in mbarn)
1	0.9 ± 0.1	9.2 ± 0.8	3.9 ± 0.3
2	1.2 ± 0.6	7.4 ± 1.5	4.5 ± 0.5

Card 4/5

V. IAKOSLAVINSKIY, D.A.; KRAZOV, A.N.; GERLING, E.K.

Age of geological formations in the Northern Baikal Highland.  
Trudy Lab. geol. zem., no.12:281-290 -61, (MIRA 14:11)  
(Northern Baikal Highland--Geological time)

STARIK, I.Ye., ctv. red.; SHCHERBAKOV, D.I., akademik, zam. ctv. red.; BAKANOV, V.I., prof., zam. ctv. red.; VINOGRADOV, A.P., akademik, red.; VOLKANOV, A.A., akademik, red.; AFANAS'YEV, G.D., red.; GERLING, E.K., prof., red.; PEKARSKAYA, T.B., kand. geol.-miner. nauk, red.; ARON, G.M., red. izd-va; GALIGAMOVA, L.M., tekhn. red.

[Transactions of the Tenth Session of the Commission on the Determination of the Absolute Age of Geological Formations, June 5-10, 1961] Trudy desiatoi sessii...; 5-10 iunia 1961 g. Moskva, Izd-vo Akad. nauk SSSR, 1962. 379 p. (MIRA 15:11)

1. Akademiya nauk SSSR. Komissiya po opredeleniyu absolyutnogo vozrasta geologicheskikh formatsiy. 2. Chlen-korrespondent Akademii nauk SSSR (for Starik, Afanas'yev).  
(Geological time)

GERLING, E.K.; SHUKOLYUKOV, Yu.A.; MATVEYEVA, I.I.

Age determination of beryls and other minerals containing inclusions  
by the Rb/Sr method [with summary in English]. Geokhimiia no.1:67-  
72 '62. (MIRA 15:2)

1. Laboratory of Geology of the Precambrian, Academy of Sciences,  
U.S.S.R., Leningrad.  
(Minerals)(Geological time)

S/250/62/006/003/004/004  
1044/1244

AUTHORS: Pap,A.M., Surlyk,G.K., Morozova,I.N., Ovchinnikova,  
G.V.

TITLE: First data on the absolute geochronology of the  
crystalline basement of Belorussia

PERIODICAL: Akademii nauk Belaruskay SSR. Doklady. v.6, no.3, 1962,  
177-180

TEXT: The U/A method has been employed by the authors on biotites,  
in order to determine absolute ages for the various stages of the  
Proterozoic of Belorussia.

The purpose was to re-examine the existing stratigraphic sequence,  
already established by orthodox methods. This sequence includes  
in time order: i. Archean gneiss complex; ii. Lower Proterozoic  
paragneiss complex; iii. Upper Proterozoic gneiss complex; and  
iv. Upper Proterozoic complex of quartzites and schists.

No absolute age determinations were carried out on the metamorphic  
rocks themselves. Instead the age of the intrusives in these rocks

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S/250/62/006/003/004/004  
I044/I244

First data on the absolute geochronology...

was determined.

Thus, as the age of the oldest intrusive was determined as 1930-1940 millions of years, the intruded metamorphic suite must be about 2000 millions years old. The next stage was determined as 1900-1800, and the third at 1600-1300 million. The age of the fourth complex remains undetermined, mainly due to unclear structures relations. There is 1 table.

ASSOCIATION: Institut geologicheskikh nauk AN BSSR, 1 Minsk  
Laboratoriya geologii dokembriya AN SSSR, 1 Leningrad  
(Institute of Geological Sciences AS USSR, Minsk  
Laboratory of Precambrian geology AS USSR, Leningrad)

SUBMITTED: June 26, 1971

Card 2/2

246210  
S/001/62/000/005/001/001  
B142/B101

AUTHORS: Gerling, E. K., Shukolyukov, Yu. A.

TITLE: Age determination by the Pb/U method on radioactive minerals containing common lead

PERIODICAL: Geokhimiya, no. 5, 1962, 403-410

TEXT: The method under consideration can be used to determine the true age of minerals containing uranium and large amounts of common lead. The equation  $b + 1 - \tan\alpha = \exp(\lambda_8 t_M) - \tan\alpha \exp(\lambda_5 t_M)$  was derived from the law of radioactive decay. Here,  $\lambda_5$  and  $\lambda_8$  are the decay constants of  $U^{235}$  and  $U^{238}$ , respectively;  $t_M$  denotes the age of the mineral; and  $\tan\alpha = Pb_0^{206}/137.8 Pb_0^{207}$ , where  $Pb_0^{206}$  and  $Pb_0^{207}$  are the amounts of isotopes of common lead. The figure 137.8 expresses the ratio of  $U^{238}$  to  $U^{235}$ . Graphical solution of this equation furnishes a straight line with  $Pb^{206}/U^{238}$  as the ordinate and  $Pb^{207}/U^{235}$  as the abscissa. Then, b

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S/007/62/000/005/001/001  
B142/B101

Age determination by the Pb/U ...

is the section on the ordinate cut off by the straight line, and  $\tan\alpha$  is the slope of the straight. Two points of intersection with the straight are obtained by plotting the curve of "consistent values" in the coordinate system (every point of the curve corresponds to the values  $Pb^{206}/U^{238}$  and  $Pb^{207}/U^{235}$  which yield the same age). The lower point of intersection gives the true age of the mineral, and the upper one represents the upper limit of the differentiation periods of U and Pb in the earth's crust. The method under consideration was used to determine the age of a number of minerals from various areas with the aid of relevant experimental data of various authors. The error varies from 10 to 15% and is particularly high with recent geological formations, but is reduced with increasing number of samples. The upper limit of the age of the earth's crust was found to be  $(5200 \pm 130) \cdot 10^6$  years. There are 14 figures and 1 table. The most important English-language references are: L. R. Stiff, T. W. Stern. Geochim. et Cosmochim. Acta 22, N 2-4, 1961; R. D. Russel, R. M. Farquhar. Lead isotopes in geology, N. Y., 1960.

Card 2/3

Age determination by the Pb/U ...

S/007/62/003/005/001/001  
B142/B101

ASSOCIATION: Laboratoriya geologii dokembriya AN SSSR, Leningrad  
(Laboratory of Geology of the Precambrian, AS USSR,  
Leningrad)

SUBMITTED: October 25, 1961

Card 3/3

S/007/62/000/003/001/002  
B107/B101

AUTHORS: Mirkina, S. L., Gerling, E. K., Shukolyukov, Yu. A.

TITLE: Determination of absolute age in alkaline complexes of the Middle Ural by the lead isotope and potassium-argon methods

PERIODICAL: Geokhimiya, no. 8, 1962, 643 - 648

TEXT: Age determinations were carried out on 14 samples of radioactive minerals and 22 samples of potassium-containing minerals. A new mathematical method is described which eliminates errors in age determination due to common lead. The preliminary results of this work were presented at the Metodicheskoye soveshchaniye Komissii po opredeleniyu absolyutnogo vozrasta geologicheskikh formatsiy (Conference on Methodology of the Geological Formations), Commission for Determination of the Absolute Age of Geological Formations, January 1961, in Leningrad. The age as determined by the K/Ar method was 280 mill. years; but the results from the lead isotope method, correcting the experimental values for the content of common lead on the basis of measurements made on paragenetically associated galena, proved completely useless since they varied between 14 and 5160 mill. years. Calculation by ✓

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Determination of absolute age in ...

3/037/62/000/CIA/001/002  
3107/B101

another method was, however, successful. This consists in plotting  $Pb^{208}/Pb^{204}$  as a function of  $Th^{232}/Pb^{204}$ ,  $Pb^{206}/Pb^{204}$  as a function of  $U^{238}/Pb^{204}$ , and finally  $Pb^{207}/Pb^{204}$  as a function of  $U^{235}/Pb^{204}$ , which results in straight lines. The age of the common lead captured can be calculated from the slope of these lines and its isotopic composition is found from their ordinate section. It is assumed that all samples have captured common lead of equal isotopic composition. Results (in the above order): 295, 275, and 230 mill. years, in good agreement with the K/Ar age. There are 1 figure and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut  
(All-Union Scientific Research Institute of Geology)  
(S. L. Mirkina); Laboratoriya geologii dokembriya AN SSSR  
(Laboratory for Precambrian Geology AS USSR)(Yu. A. Shukolyukov)

SUBMITTED: October 24, 1961

Card 2/2

GERLING, E.K.; OVCHINNIKOVA, G.V.

Causes of underestimating the age of micas when dating  
them by the Rb-Sr method. Geokhimiia no.9:755-761  
'62. (MIRA 15:11)

1. Laboratory of Precambrian Geology, Academy of  
Sciences, U.S.S.R., Leningrad.  
(Mica)  
(Geological time)

ERLING, E.K.; MOROZOVA, I.M.

Determination of the spectrum of the activation energy values of  
argon and helium separation from minerals. Geokhimiia no.12:  
1108-1118 '62. (MIRA 16:9)  
(Helium) (Argon)

E.K. GERLING, Yu.A. SHUKOLYUKOV, T.V. KOLTNOVA, I.I. MATVEIEVA,  
S.S. YAKOVLEVA (USSR)

"Determination of the Earth age by means of the most ancient minerals and  
rocks"

Report presented at the Conference on Chemistry of the Earth's Crust,  
Moscow, 14-19 Mar 63.

AFANAS'YEV, G.D., otv. red.; BARANOV, V.I., prof., zam. otv. red.; SHCHERBAKOV, L.I., akademik, red.; POLZAVOV, A.A., akademik red.[deceased]; STARIK, N.Ye., redaktor; VINOGRADOV, A.P., akademik, r.d.; GERLING, E.K., prof., red.; PEKARSKAYA, T.B., kand. geol.-miner. nauk, red.; BORSUK, A.M., red.izd-va; SIMKINA, G.S., tekhn. red.

[Transactions of the 11th session of the Commission on the Determination of the Absolute Age of Geological Formations, May 12-27, 1963] Trudy odinnadtsatoi sessii...; 12-27 maiia 1963 g. Moskva, Izd-vo AN SSSR, 1963. 390 p.  
(MIRA 17:4)

1. Akademiya nauk SSSR. Komissiya po opredeleniyu absolyutnogo vozrasta geologicheskikh formatsiy. 2. Chlen-korrespondent AN SSSR (for Afanas'yev, Starik).

L 13673-63

BDS

ACCESSION NR: AP3003678

8/0186/63/005/003/0277/0283

AUTHORS: Gerling, E. K.; Kol'tsova, T. V.

46

TITLE: Co-crystallization of the crystalline hydrate of argon with crystalline hydrates of silane and methane

SOURCE: Radikkhimiya, v. 5, no. 3, 1963, 277-283

TOPIC TAGS: crystalline hydrate, argon, silane, methane, clathrate compound, methanol.

ABSTRACT: The formation of crystalline hydrate of silane at a temperature of liquid air was illustrated in a previous article. The present study is made to justify the assumption that crystalline hydrates of silane and argon form isomorphic co-crystallization. The melting character of the elasticity graphs measured during the freezing of various quantities of argon with liquid air in the presence of water vapors, first with silane and then with methane, show that these substances form compounds related to solid solutions. Through the analogy of other crystalline hydrates, it can be said that the formed compounds are crystalline hydrates of the type  $M \cdot 6H_2O$  ( $M = Ar$  and  $SiH_4$  or  $M = Ar$  and  $CH_4$ ) which co-crystallize with each other. These compounds must be referred to the

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ACCESSION NR: AP3003678

clathrate compounds described in the literature. The clathrate compounds have the ability of being saturated with various substances. In this case, they were saturated with argon, methanol, and argon-methanol mixture. The absorption capacity was over 50% of the initial quantity of argon and methanol present in the compound. The elasticity of the saturated compound is 3 to 4 times greater than the elasticity of the solid phase compound. After desorbing the saturated gas the elasticity again becomes equal to that of the solid phase. The elasticity of the argon and methane calculated separately differ from the elasticity of the co-precipitated material, which is considerably lower. It was shown that argon which enters into the composition of the compound may take part in the heterogeneous isotopic exchange with the radioactive argon in the gaseous form. The diffusion process is confirmed through calculations. Orig. art. has: 3 tables, 4 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 31Jul62

DATE ACQ: 07Aug63

ENCL: 00

SUB CCDE: CH

NO REF Sov: 006

OTHER: 010

2/2  
Card

GERLING, E.K.; SHUKOLYUKOV, Yu.A.

Calculation of the differentiation time of primary magma  
based on potassium-argon dating. Geokhimiia no.4:347-350  
Ap '63. (MIRA 16:7)

1. Laboratoriya geologii dokembriya AN SSSR, Leningrad.  
(Potassium-argon dating) (Magma)

GERLING, E.K.; LEVSKIY, L.K.; MOROZOVA, I.M.

Diffusion of radiogenic argon from minerals. Geokhimiia  
no.6:539-543 Je '63. (MIRA 16:8)

1. Laboratory of Geology of the Precambrian, Leningrad.

GHERLING, E.K. [Gerling, E.K.]; SUKOLIUKOV, I.A. [Shukolyukov, Yu.A.]

Calculation of differentiation time of the primary magma according  
to the K/Ar method. Analele geol geogr 17 no.4:21-24 0-D '63.

THE U.S. GOVERNMENT RETAINS OWNERSHIP  
OF THIS DOCUMENT.

Preliminary analysis indicates that the following is the  
Baltic Shield. Credit (ib. cont. from page 14910005-6)  
(M 17-9)

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

DATE 09-24-2001 BY SPK/MSB (SAC-DOJ-BALTIMORE-4-770 161  
(W/21-118)

GERLING, L.E.; FIP, A.M.; MOROZOV, I.M.; AFANAS'IEVA, L.I.; DUNIKO, V.P.

Stratigraphy of the Pre-Cambrian of White Russia and adjacent areas according to data of the absolute age. Sov. geol. 7 no.3:120-126 Mr '64. (MIRA 17:10)

1. Laboratoriya geologii dokembriya AN SSSR i Institut geologicheskikh nauk AN BSSR.

GERLING, E.K.; VASIL'EVSKAYA, E.S.; GIVYEROV, I.M.

Attempt to determine the age of the enclosing rocks of Monchegorsk nickel-bearing pluton using K-Ar and Rb-Sr methods. Geokhimiia no.6:500-504 Je '64. (MIRA 18:7)

1. Laboratoriya geologii dokembriya AN SSSR, Leningrad,

OBRUSHEV, S.V., et al. red.; GOLIKOV, V.P., et al. red.;  
red.; NEYFELOV, A.N., et al. red.; MIRSKY, V.A.;  
SOKOLOV, Yu.M., KAND. geologicheskikh nauk, red.;  
SHUKOLYUKOV, Yu.A., kand. khim. nauk, red.

[Absolute age of Precambrian rocks in the U.S.S.R.]  
Absoliutnyi vekovyi dokazatel'stvennyi metod. Moscow:  
Nauka, 1965. 206 p. (MIRA 1965)

1. Akademiya nauk SSSR. Naukovaia biblioteka Akademii Nauk SSSR.
2. Chlen-Korrespondent Akademii Nauk SSSR (for literature).

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514910005-6

SPRINCE, E.N.; ZHURAVLA, T.V.; PETROV, B.V.; ZULFIKAROVA, Z.K.

Study of the suitability of amphiboles for the determination  
of the absolute age of rocks by the potassium argon method.  
Geokhimiia no.2t219-226 F '65. (MIRA 18:6)

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514910005-6"

GERLING, E.K.; PUSKAREV, Yu.D.; KOTOV, N.V.

Behavior of some minerals during heating under the conditions of  
the increased argon pressure. Izv. AN SSSR. Ser. geol. 30 no.11;3-  
13 N '65. (MIRA 18:12)

1. Laboratoriya geologii dokembriya AN SSSR i Leningradskiy  
gosudarstvennyy universitet imeni A.A.Zhdanova. Submitted  
July 7, 1965.

GERLING, E.K.; LOBACHE-ZHUCHENKO, G.P.; SOKOLOV, N.F.

New data on the absolute age of the Jotnian of the Baltic Shield.  
Dokl. AN SSSR 166 no. 3:674-677 Ja '66.

(M194 19:1)

I. Laboratoriya geologii dokembriya AN SSSR. Submitted October 13,  
1965.

L 33260-66

ACC NR: AT6012788

SOURCE CODE: UR/3175/66/000/027/0112/0114

43

2-1

AUTHOR: Gerling, V.E.; Omelin, V.M.

ORG: OKB GGK SSSR

TITLE: Electronic time relay with a short exposure

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Osoboye konstruktorskoye byuro Geofizicheskaya apparatura, no. 27, 1966, 112-114

TOPIC TAGS: time relay, electronic time relay, timing device, digital timing device,  
~~transformer steel~~ ~~310 transformer steel~~ PULSE GENERATOR

ABSTRACT: The authors describe an electronic time relay with a short exposure interval, based upon an electronic digital count of a standard pulse clock. The development was motivated by inadequate precision of conventional analog timers based upon an RC network. In the presented device, a counter controls an electronic switch. The precision of the relay, with a reliable counter, depends only upon the clock (pulse generator) stability. The block diagram of the instrument is shown and its constructional and functional features described. The 64 per sec pulse generator is based upon an LC circuit using a mark FT capacitor and an inductance with a core of E-310 transformer steel. Frequency error is under .3% at the temperature range of -5 to -40°C. The design range of exposure is .5 - 10 seconds. Orig, art has 1 figure.

SUB CODE: 09 / SUBM DATE: 00/ ORIG REP: 001

Card 1/1 *dy*

ACC NR: AP6015757

SOURCE CODE: UR/0048/66/030/005/0754/0757

AUTHOR: Vertsner,V.N.; Gerling,V.E.; Zenov,B.K.; Krupchatkin,V.D.; Omelin,V.M.; Solov'yev,A.M.; Toporkov,S.A.; Ustimenko,V.V.

ORG: none

TITLE: An x-ray microanalyzer featuring recording without a crystal /Report, Fifth All-Union Conference on Electron Microscopy held in Sury 6-8 July 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 754-757

TOPIC TAGS: x ray analysis, proportional counter, special purpose computer

ABSTRACT: An x-ray microanalyzer is described in which the x rays are recorded directly with a proportional counter without the use of a crystal diffraction x-ray spectrometer. This type of recording has the advantages of simplicity and high sensitivity, and the disadvantage of low resolving power. The electron-optical system of the instrument provides a 3-5  $\mu$  diameter probe with a current of about 1  $\mu$ A. Adjustment is facilitated by an optical microscope with a resolution of 3 $\mu$  and a working distance of 19 mm, which can be focused by means of a lever without breaking the vacuum. Type CPM-1 sealed off proportional counters as well as flow-type counters have been employed with this instrument. These counters with their associated circuits cannot resolve the K lines of neighboring elements. When the concentrations of neighboring elements

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ACC NR: AP6015757

is to be determined, the counting rate versus pulse height curve is resolved mathematically into three curves, each representing the contribution of one of three neighboring elements. This resolution is effected automatically by a computing circuit, the operating principle of which is described and is based on a modification of the technique proposed by R.M.Dolby (Proc. Phys. Soc., 73 81 (1959)). The error in determining concentrations of neighboring elements is about 20 %; this large error is due to the long time required for the determination (at least 40 minutes) together with the instability of the proportional counter, the amplifier, and the differential discriminators. When the elements to be determined differ in atomic number by more than 4 or 5 units the different K lines are directly resolved and the error of the determination is not more than 5 %. Under these conditions the computing circuit can be used as a three-channel pulse analyzer for the simultaneous recording of the K line intensities of three different elements. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 005

Card 2/2 *11/2*

L 32415-65 EEC(b)-2/EWA(h)/EWT(l)/EWT(m)/EWP(b)/EWP(e) Pg..4/Peb WE

ACCESSION NR: ATR5004719

8/27/85/69/000/016/0059/0059

AUTHOR: Gerling, V. E.

TITLE: Pulsed source of reference light signal for the stabilization of the gain  
of a photoelectronic multiplier

SOURCE: USSR, Gosudarstvennyy geologicheskiy komitet, Osnovnoye konstruktorskoye  
byuro. Geofizicheskoye priborostroenie, 16, T0832 55.90

TOPIC TAGS: photomultiplier, photoluminescence, photoamplifier

**ABSTRACT:** The article describes a photomultiplier and amplifier system in which the gain is stabilized by light pulses from a vacuum tube, and which is shown to have several advantages over other methods. The physical phenomenon which makes such a system possible is that whenever current pulses pass through a vacuum tube, some of the electrons reach energies capable of producing luminescence of the glass when the glass envelope is bombarded with electrons. The tube most suitable for this purpose was found to be the 6NL5P miniature tube, and luminescence of its envelope was excited by applying a unipolar pulse from a blocking generator to the

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L 32415-65

ACCESSION NR: AT5004719

grid of the tube. The luminescence pulses from the tube are of constant amplitude and are fed through a light pipe to the photomultiplier photocathode. A great advantage of the system is the possibility of producing a very short pulse (approximately 2  $\mu$ sec), which can be readily adjusted in amplitude. A pulsed source of this type is used to correct the photomultiplier gain in the low light intensity range.

ASSOCIATION: None

SUBMITTED: 09

ENCL: 00

SUB CODE: OP

MR RUE SOV: 002

OTHER: 005

Card 2/2

SEPLINSKIY, Tadeush, Card Agric Sci (diss) -- "The structure and growth of mixed plantings of the pine-oak type in the forests of Poznan Mojewodzstwo, Polish people's Republic, and the principles of organizing the forest economy in them". Leningrad, 1960. 12 pp (Min Higher and Inter Spec Educ PTFEP, Leningrad Order of Lenin Forestry Engineering Acad im S. M. Kirov), 200 copies (K., No 12, 1960, 129)

GERLINSKIY, T.

Growth of the mixed stands of pine-oak forests in the natural forest area of the Polish People's Republic (Poznan' Voivodeship). Nauch. trudy LTA no.99:29-39 '62. (MIRA 17:1)

GERLIT, V.A.

SUBJECT USSR / PHYSICS CARD 1 / 1 PA - 1720  
AUTHOR GUSEVA, L.I., FILIPPOVA, K.V., GERLIT, V.A., DRUIN, B.F.,  
MYASOEDOV, B.F., TARANTIN, N.I.  
TITLE Experiments carried out with a Cyclotron on the Occasion of the  
Production of Einsteinium and Fermium.  
PERIODICAL Atommaja Energija, 1, fasc. 2, 50-54 (1956)  
Issued: 1 / 1957

The results obtained by some experiments carried out on the occasion of the production of einsteinium and fermium by bombarding the uranium nuclei with quintuply ionized nitrogen and with sextuply ionized oxygen are described.

The half life and the energy of the  $\alpha$ -particles are on this occasion determined by means of a photographic plate, with an ionization chamber which has spherical electrodes, and by means of a twenty-channel counting tube. A chromatographic method was used for the purpose of separating the transplutonium elements. By the bombardment of radioactive uranium with nitrogen ions of 105 MeV an einsteinium isotope with the mass number 247 was obtained, but by bombarding uranium with oxygen ions of 120 MeV a fermium isotope was obtained.

INSTITUTION:

GERLIT, Yu. B.

[Some chemical properties of technetium] Nekotorye khimicheskie  
svoistva tekhnetsiia; doklady, predstavленные СССР на Междунаро-  
дной конференции по мирному использанию атомной энергии.  
Москва, 1955. 15 p. [Microfilm]  
(Technetium) (MLRA 9:3)

GERLIT, Yu. B.

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei

C-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3216

Author : Guseva, L.I., Filippova, K.V., Gerlit, Yu.B., Druin, V.A.,  
Mynasoyedov, B.F., Tarantin, N.I.

Title : Experiments on Obtaining En and Fm with a Cyclotron.

Orig Pub : Atom. energiya, 1956, No 2, 50-54

Abstract : Report of production of transplutonian elements by bombarding U with nuclei of N and O. Quintupli-charged ions of N and sextuple-charged ions of O were accelerated with a cyclotron having a magnet with pole diameters of 150 cm. The transplutonian elements were separated by the fluoride method using La as a carrier. The half lives and the energies of the  $\alpha$  particles were measured with the aid of photographic plates and an ionization chamber with a spherical electrode. The quintupli-charged ions of N were obtained in a specially developed slit-type source. The energy of the N ions at the maximum radius was 105 Mev, and the ion current was  $5 \times 10^{-7}$  amp. Irradiation of U by N ions produced the isotope  $En^{247}$ , identified by the value of T and by the energy of the  $\alpha$  particles. Sextuple-charged O ions were obtained by "stripping" double-charged O ions on molecules of the residual gas in the cyclotron.

Card : 1/2

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei

C-4

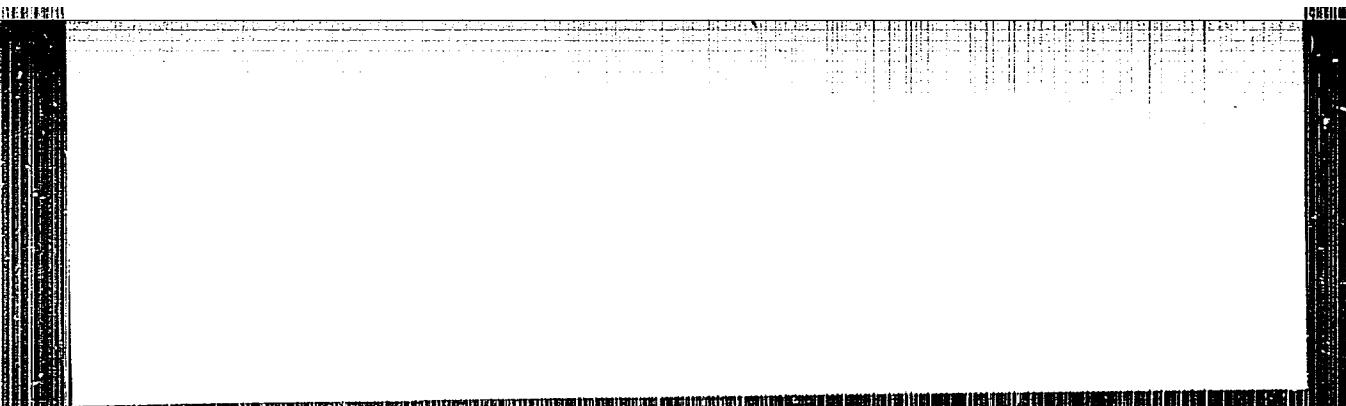
Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3216

chamber. The maximum energy of the accelerated sextuple-charged ions of O at the maximum radius was 120 Mev. The current of ions with energies exceeding 100 Mev was  $3 \times 10^{-9}$  amp. The isotope Fm was obtained by exposing U to ions of O and was identified by the value of T and by the energy of the  $\alpha$  particles. Several hundreds of atoms each of isotopes of Cf, Bk, and Cm were separated by the chromatographic method.

Card : 2/2

"APPROVED FOR RELEASE: 09/24/2001

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"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514910005-6

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514910005-6"

GERALT, Yu. B., FEDOROV, I. V., FRANKE, L. A., KUZNETSOV, V. V.,  
and TROITSKII, N. I. (Lead Sci. Work)

"Mass Distribution of Fission Fragments Formed by Nitrogen Ions on Gold  
and Uranium Nuclei,"

paper submitted at the K-2 Conf. on Nuclear Reactions in Medium and Low Energy  
Physics, Moscow, 19-27 Nov 57.

C.E.V.I.V., M.V.

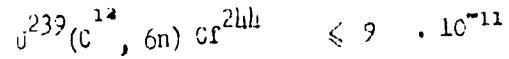
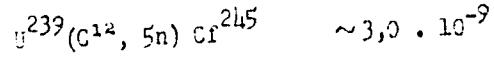
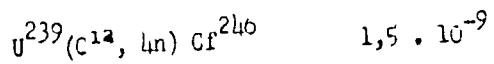
56-2-4/47

AUTHOR SERLIT, Yu.S., GUS'KOV, S.P., MYASOYEDOV, S.F., TAKANTIN, N.I., FILIPOVA, K..., FLEROV, G.N.

TITLE Yield of Californium Isotopes Produced in the Interaction between Carbon Isotopes and Uranium Nuclei  
(Vlykhody izotopov kalifornija v reaktsiyakh vzaimodeystviya ionov ugleroda s yadrami urana. Russian)

PERIODICAL Zhurnal Eksperim. i Teoret. fiziki 1957, vol 33, no 3 (8), p. 132 - 342 (J.S.S.R.)

ABSTRACT In a 67 cm cyclotron four-fold charged carbon ions are accelerated up to 90 MeV. With this energy they impinge upon a thick uranium target and cause the reaction  $U(C, n)Cf$ . The absolute yields per impinging carbon ion and the following reactions are:



The fissioning of uranium bombarded with carbon was found to be  $3,8 \cdot 10^3$  times more probable than the evaporation process of neutrons from the intermediary nucleus  $Cf^{250}$ .

Card 1/2

56-2-4/47

Yield of Californium Isotopes Produced in the Interaction between  
Carbon Isotopes and Uranium Nuclei

(With 1 table and 4 illustrations).

ASSOCIATION      Academy of Sciences of the USSR  
                  (Akademiya nauk SSSR)

PRESNTED BY

SUBMITTED      5.3.1957

AVAILABLE      Library of Congress

Card 2/2

AUTHORS: Tarantin, M. I., Gerlit, Yu. B., Guseva, L. I., 56-2-7/51  
Myasoyedov, B. F., Filippova, K. V., Flerov, G. N.

TITLE: The Mass Distribution of Fission Products Produced by the  
Irradiation of Gold and Uranium by Nitrogen Ions  
(Raspredeleniye po massam produktov deleniya,  
obrazuyushchikhsya pri obluchenii zolota i urana ionami  
azota)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1956,  
Vol 34, Nr 2, pp 316-321 (USSR)

ABSTRACT: The present work investigates the mass spectrum of the  
fission fragments of radon and einsteinium which are formed  
in the irradiation of gold and uranium with nitrogen ions.  
First the experimental method is discussed. Gold- and  
uranium plates of a thickness of  $30 \mu$  were irradiated with  
five-times charged nitrogen ions from a slit source at the  
inner ray of an 150 cm cyclotron. The energy of the nitrogen  
ions was 11.5 MeV. After the dissolution of the irradiated  
target the different radioactive elements on the  
corresponding carriers were dissolved. The radioactive

Card 1/3

The Mass Distribution of Fission Products Produced by the  
Irradiation of Gold and Uranium by Nitrogen Ions

36-2-7/51

isotopes were identified according to their half life. The relative yields of the nuclei identified this way are listed in a table. A diagram shows the yields of the nuclei given in this table as a function of the mass number A. The main part of the yield of fission products is concentrated within a comparatively narrow interval of mass numbers. The yield of fission fragments increases rather greatly with an increase of the mass number from 70 to 100, and with still greater mass numbers it decreases to the same extent. From the experimental values of the yields of single nuclei the total yields of the corresponding mass series (massovaya tsepochka) were computed. The additional taking into account of the yields of nuclei not identified in these experiments changes only little the character of the distribution of experimental points. The curve of the distribution of fission fragments in relation to the mass with the values A = 65 to 115 has the shape of a narrow peak with a half width of about 20 mass units. The yields of Ga<sup>72,73</sup>, Se<sup>123</sup>, Sb<sup>122</sup> and the yields of the series of decays corresponding to these nuclei do not coincide with the monotonous course of the curve and are a little greater as normal. About 20

Card 2/3

The Mass Distribution of Fission Products Produced by the  
Irradiation of Gold and Uranium by Nitrogen Ions 56-2-7/51

different isotopes were identified among the fission products forming in the irradiation of uranium with nitrogen ions. The yields of the accumulated nuclei are collected in a table. The fission of nuclei under the action of heavy particles can be represented by the following scheme: Formation of a compound nucleus, emission of neutrons and fission. The half width of the curve of the distribution of fission fragments on the mass is considerably smaller in the fission of radon than in the fission of einsteinium. There are 2 figures, 2 tables, and 10 references, 4 of which are Slavic.

SUBMITTED: August 20, 1957

AVAILABLE: Library of Congress

1. Gold-Irradiation 2. Uranium-Irradiation 3. Nitrogen ions-  
Applications 4. Isotopes-Determination

Card 3/3

GERLIT, Yu.B.; PAVLOTSKAYA, F.I., kand.khimicheskikh nauk; RODIN, S.S.

Chemistry of the new elements, technetium, promethium, astatine,  
and francium. Khim.nauka i prom. no:4:465-472 '59.  
(MIRA 13:8)

(Technetium)  
(Promethium)  
(Astatine)  
(Francium)

21(8)

20756-36-2-45/63

AUTHORS:

Karmayan, A. S., Gerlit, Yu. B., Myasoyedov, B. F.

TITLE:

On the Problem of the Formation of Compound Nuclei During the Interaction of Atomic Nuclei (K voprosu ob obrazovani sostavnykh jader pri vzaimodeyystvii atomnykh jader)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 19, 9,  
Vol 36, Nr 2, pp 621-623 (USSR)

ABSTRACT:

An investigation of the interaction of multicharged ions with nuclei of various elements leads to the following problem: In what degree do these reactions proceed by the total fusion of the colliding nuclei (with subsequent evaporation of neutrons)? The curves for the dependence of the cross section of a reaction with flying off of a given number of neutrons on the excitation energy of the compound nucleus can be used as a criterion of these reactions. A. W. Stoner's new data concerning the bifurcations of the  $\alpha$ -decay and of the K-capture and also more precise measurements of the energy of the accelerated nitrogen ions permitted a more precise determination of the excitation functions of the reactions  $Au^{197}(N^{14}, xn)$  with  $x = 1, 5, 6$ . These excitation

Card 1/3

SC7/56-36-2-75/63

On the Problem of the Formation of Compound Nuclei During the Interaction  
of Atomic Nuclei

functions (which are shown in a diagram) with flying off of 2, 3, and 4 neutrons are characteristic of the formation of a compound nucleus. According to the absolute values of the cross sections, the reaction very probably proceeds in this way. If the energy of the nitrogen ions is higher than 70 Mev. the compound nuclei of  $\text{Cu}^{61}$  are maintained, which complicates the investigation of the deviations from the formation of compound nuclei in the region of high excitation energies. For this purpose, light nuclei have to be used as targets. The authors investigated the interactions of accelerated ions of  $\text{N}^{14}$ ,  $\text{N}^{15}$ ,  $\text{C}^{12}$ , and  $\text{C}^{13}$  with vanadium nuclei. Carrying out of the experiments is discussed in short. A diagram shows the dependence of the cross sections of the reactions with flying off of 2, 3, and 4 neutrons on the excitation energy of the compound nucleus  $\text{Zn}^{65}$  ( $\text{V}^{51} + \text{N}^{14} \rightarrow \text{Zn}^{65}$ ). It was not possible to separate the reactions with flying off of 4 neutrons from the possible reaction of direct formation of  $\text{Cu}^{61}$  by flying off of 3 neutrons.

Card 2/3

LCY, 36-36-2-45, 63

On the Problem of the Formation of Compound Nuclei During the Interaction of  
Atomic Nuclei

and 1 proton. The diagram, therefore, shows the summatized cross section of these 2 reactions. The third diagram shows the analogous curves for reactions, in which the flying off of a number of particles was investigated for the same product

( $\text{Cu}^{61}$ ) of the reaction. These curves indicate the presence of other reactions which may, for example, be connected with the so-called local heating. The results of the present paper are also compared with those obtained by other authors. Without taking into account some details of the excitation functions, the following may be said: In the interval of the mass numbers 50 - 200 of the target nuclei the interaction with multicharged ions in a significant degree develops by the formation of compound nuclei. The authors thank Professor G. N. Flerov (who supervised the present paper), and the graduated students A. A. Fleve and V. A. Fomichev for their help in the measurements and in the evaluation of the results. There are 5 figures and 6 references, 2 of which are Soviet.

SUBMITTED: September 16, 1958  
Card 3/3

GERLIT, Yu.

GHERLIT, I.B. [Gerlit, Yu.K.]: PAVLOTKAIA, F.I. [Pavlotskaya, F.I.]; RODIN, S.S.

Chemistry of some new elements: technetium, promethium astatine,  
francium. Analele chimie 15 no.1:166-180 Ja/Mr '60 (EEAI 9:8)  
(Astatine) (Francium) (Technetium)  
(Promethium)

S/137/62/000/001/230/237  
A154/A101

AUTHORS: Ryabchikov, D. I., Gerlit, Yu. B.

TITLE: The present state of the analytical chemistry of rhenium

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 11, abstract 1K69  
(V sb. "Metody opredeleniya i analiza redk. elementov". Moscow,  
AN SSSR, 1961, 629-652)

TEXT: This review gives methods for the following: Determination of Re in rocks. Extraction-photometric determination of Re with methyl violet. Colorimetric determination of Re after extraction by methyl ethyl ketone. Photometric determination of Re in Mo-containing products. Gravimetric determination of Re in a W-Re-alloy. Colorimetric determination of Re in Ta-Re, W-Re and Mo-Re alloys. Determination of Re in Mo-Re and W-Re alloys after preliminary separation of the Re by the chromatographic method. Spectrophotometric determination of Re in alloys on various bases. Determination of Re by the differential spectrophotometric method. Potentiometric determination of Re in alloys. Spectral determination of Sb, Bi, Cd, Pb and Sn in metallic Re. Determination of admixtures of Na and K in Re preparations by the flame-photometry method.

Card 1/2

The present state of ...

S/137/62/000/001/230/237  
A154/A101

Colorimetric determination of admixtures in metallic Re. There are  
146 references.

N. Gertseva

[Abstracter's note: Complete translation]

Card 2/2

AVTOKRATOVA, Tat'yana Dmitriyevna; VINOGRADOV, A.P., akademik, glav.  
red.; TANAHAYEV, I.V., akademik, red. toma; RYABCHIKOV, D.I.,  
doktor khim. nauk, red. toma; GERLIT, Yu.B., red.; SUSHKOVA,  
L.A., tekhn.red.; GUS'KOVA, O.M., tekhn. red.

[Analytical chemistry of ruthenium] Analiticheskaya khimiia  
ruteniya. Moskva, Izd-vo Akad. nauk SSSR, 1962. 263 p.  
(MIRA 15:11)

(Ruthenium--Analysis)

S/075/62/017/007/006/006  
B119/B186

AUTHORS: Ryabchikov, D. I., Borisova, L. V., and Gerlit, Yu. B.

TITLE: Chromatographic separation of rhenium from molybdenum and tungsten by means of mixed eluents on EDE-10 (EDE-10) anionite

PERIODICAL: Zhurnal analiticheskoy khimii, v. 17, no. 7, 1962, 890 - 892

TEXT: Separation experiments were made with the following eluents: 2 M  $H_3PO_4$  (I); 0.2 M  $H_3PO_4$  + 0.3 M  $Na_2HPO_4$  (II); 0.2 M  $H_3PO_4$  + 0.6 M  $Na_2SO_4$  (III). The ionic strength of the solutions was kept constant. The complete separation and the degree of purity of the Re separated were proved by means of  $R^{186}$ ,  $Mo^{99}$ , and  $W^{185}$ , whereby good quantitative results were obtained. 40 - 45 ml of I, 30 - 35 ml of II, and 24 - 25 ml of III were used to elute equal amounts of Re. Best results in Re eluation were from III. There are 4 figures and 3 tables.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AS USSR, Moscow)

Card 1/2

Chromatographic separation of...

S/075/62/017/007/006/006  
B119/B186

SUBMITTED: September 6, 1961

Card 2/2

S/020/32/144/003/024/030  
B124/3101

AUTHORS: Ryabchikov, D. I., Gerlit, Yu. B., Karyakin, A. V.,  
Zarinsky, V. A., and Subrilina, M. Ye.

TITLE: Extraction recovery of perrhenates with ketones

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 565-567

TEXT: Data on the influence exerted by the properties of the ketone on the distribution coefficient  $\alpha$  in the extraction of perrhenates are presented, and the mechanism of extraction recovery of perrhenates is studied by means of some thermodynamic parameters and the infrared spectra. The relation between the ratio  $28 : MM$  (28 being the molecular weight of the CO group and MM the molecular weight of the ketone) of the extraction solvent and the distribution coefficient was found to be linear for the methyl ketone series, while, with ketones of the same molecular weight and structures different from those of the methyl ketones, deviations from linearity were established. A constant value of  $\Delta H$  of  $9.2 \pm 0.3$  kcal was established for the methyl ketones. The value for other types of ketones is somewhat lower. Generally, lower values of the "thermodynamic" distribution coefficient  $\alpha'$

Card 1/3

S/020/62/144/003/024/030  
B124/B101

Extraction recovery of ...

and  $\Delta\text{H}$  as well as a shift of the stretching vibration frequency of the C=C group were found in the presence of sodium perrhenate. Since obviously no fundamental difference is to be expected in one series of solvents concerning the mechanism of extraction recovery of sodium perrhenate, the respective deviations are probably due to the difference in the composition of the solvates formed. The infrared spectrum of water in several solvated associates of the perrhenate ion with hydrogen, sodium, potassium, calcium, and aluminum ions remained practically unchanged. When the solvating cations are replaced by a hydrophilic group such as  $(\text{C}_6\text{H}_5)_4\text{As}^+$  or  $(\text{C}_6\text{H}_5\text{NH})_3\text{C}^+$ , some changes of the intensity distribution in the spectrum of water are observed, with the main portion of water remaining more firmly bound than in the ketone-water system. Thus, it can be concluded that the perrhenate ion is hydrated, which agrees with data in literature. The shift of the absorption band frequency of the CH group is somewhat greater in the presence of salts than in the presence of water. It can be stated that there is a direct bond between the ketone and the rhenium ion in the solvate. There are 3 figures and 1 table. The most important English-language reference is: R. D. Waldron, J. Chem. Phys., 26, 809 (1960).

Card 2/3

Extraction recovery of ...

S/020/62/144/003/024/030  
B124/B101

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I.  
Vernadskogo Akademii nauk SSSR (Institute of Geochemistry  
and Analytical Chemistry imeni V. I. Vernadskiy of the  
Academy of Sciences USSR)

PRESENTED: November 13, 1961, by A. P. Vinogradov, Academician

SUBMITTED: November 4, 1961

Card 3/3

S/020/62/144/004/021/024  
B101/B138

AUTHORS: Pozdnyakov, A. A., Basargin, N. N., and Gerlit, Yu. B.

TITLE: Extraction of technetium as triphenyl guanidine pertechnetate

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 4, 1962, 861 - 863

TEXT: The separation of technetium from ruthenium and molybdenum as a complex with triphenyl guanidine chloride  $[C_6H_5NH-C(=O)-NHC_6H_5]Cl$  was examined.

The solvent used was chlorex( $\gamma,\beta$ -dichlorodioethyl ether). The extraction was checked by means of radioactive isotopes Tc<sup>99m</sup> ( $T_{1/2} = 6$  hr); Mo<sup>99</sup> ( $T_{1/2} = 2.8$  days); and Ru<sup>106</sup> ( $T_{1/2} = 290$  days). Results: In HClO<sub>4</sub> no extraction occurred. In HCl and HNO<sub>3</sub> the distribution coefficient D dropped very steeply as the acid concentration rose. In H<sub>2</sub>SO<sub>4</sub>, on the other hand, D was fairly independent of the acid concentration as this acid is not coextracted. (2) In H<sub>2</sub>SO<sub>4</sub> (0 - 10 M) the values were

Card 1/2

Extraction of technetium as...

5/020/62/144/004/021/024  
B101/B138

$D_{TeO_4^-} \sim 10^3$ ;  $D_{RuO_4^-} \sim 10^2$ ;  $D_{MoO_4^{2-}} \sim 1$ ;  $D_{Ru^{+3}} = 0$ . (3) Neither Ru<sup>3+</sup> nor Ru<sup>4+</sup> nor

the nitroso-complexes of the Ru were extracted, which shows that complete separation of the Tc from the Ru would be possible even if the latter were present in great excess. There are 3 figures and 1 table. The most important English-language reference is: G. E. Boyd, L. V. Larson, E. E. Motta, J. Am. Chem. Soc., 82, 809 (1960).

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernads-kogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR)

PRESNTED: January 11, 1962, by A. P. Vinogradov, Academician

SUBMITTED: December 28, 1961

Card 2/2

ACC NR: AT6021754

(A)

SOURCE CODE: UR/0000/66/000/000/0118/0132

AUTHOR: Gerlit, Yu. B.; Spivakov, B. Ya.

17  
24

ORG: Institute of Geochemistry and Analytical Chemistry im. V. I. Vernadskiy, AN  
SSSR (Institut geokhimii i analiticheskoy khimii AN SSSR)

TITLE: Study of the salting-out processes involved in the extractive recovery of  
perrhenates by certain solvents

SOURCE: AN SSSR. Institut geokhimii i analiticheskoy khimii. Khimicheskiye osnovy  
okstraktionsnogo metoda razdeleniya elementov (Chemical principles of the extraction  
method for the separation of elements). Moscow, Izd-vo Nauka, 1966, 118-132

TOPIC TAGS: salting out, solvent extraction, rhenium compound

ABSTRACT: An attempt was made to determine the effect of structural changes of  
water, effected by various salting-out agents, on the distribution ratio during the  
extraction of a series of perrhenates by certain strongly basic solvents. The  
extracting agents were ketones, 3,5-dimethylpyridine, and tributyl phosphate. The  
distribution ratio was determined radiochemically at various temperatures. The  
rhenium concentration in the equilibrium phases ranged from  $10^{-7}$  to  $10^{-5}$  M. It is  
shown that in addition to the cations of the salting-out agents, an important contribu-  
tion to the salting-out process is made by the anions. In the case of negatively

Card 1/2

L 39103-66

ACC NR: AT6021754

hydrating salting-out agents, the presence of processes involving hydration of ions, ionic associates, and organic solvent causes the distribution ratio E to remain constant or to decrease with increasing salt concentration C, i. e.,  $\frac{dE}{dC} > 0$ . When positively hydrating agents are employed,  $\frac{dE}{dC} \leq 0$ . However, since the composition of the solvates includes water, at certain concentrations of the salting-out agents  $\frac{dE}{dC}$  changes sign, owing to the dehydration of the ionic associates. A considerable analogy was observed in the extraction of perchlorates, pertechnetates, and perrhenates. Orig. art. has: 7 figures and 2 tables.

SUB CODE: 07/ SUEM DATE: 09Mar66/ ORIG REF: 017/ OTH REF: 017

Card 2/2

VOYNOVA, P., inzh.; SOLNTSEVA, G., inzh.; GERLITSYN, Z.; REZNIK, I.

Removal of hides from refrigerated carcasses. Mias. ind. SSSR 28 no.6:  
13-14 '57. (MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Voynova, Solntseva). 2. L'vovskiy myasokombinat (for Gerlitsyn, Reznik).

(Lvov--Slaughtering and slaughterhouses) (Hides and skins)

GERLITSYN, Z.

Accounting for hides by weight and surface area. Mias,  
ind. SSSR 34 no. 5:40 '63. (MIRA 16:11)

1. L'vovskaya eksperimental'naya laboratoriya myasnoy  
promyshlennosti.

GERLOCZY F. BC

1ST AND 2ND PART		3RD AND 4TH PART	
PROCESSES AND PROPERTIES DATA			
COMMON ELEMENTS			
<p>Anaphylaxis and Human Infection. G. Reckl and P. Gerikay (Mayer, J. Physiol., 1952, 111, 29) injected 100 mg. of Ratsilis virus (a strain of the virus of the human dengue fever) into the rectum of 10 guinea pigs. After 10 days, the animals were injected with 0.1 ml. of 10% horse serum. The animals developed symptoms of anaphylaxis and died rapidly after they had been injected. The death rate was 100% and there was no mortality after the injection. The death rate was 100% and there was no mortality after the injection. The death rate was 100% and there was no mortality after the injection. The death rate was 100% and there was no mortality after the injection. A. G. I.</p>			
MATERIALS INDEX		ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION	
VOLUME NUMBER		E2-2000-1000	
100000 NO 25	100000 NO 25	100000 NO 25	100000 NO 25
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

(b) (7) C

Referring to previous (b) (7) (C) material, it is recommended that the following  
language be inserted in the (b) (7) (C) material:

With regard to intercept and to intercepts made, partly or as a preventive measure  
against interception, partly to prevent disclosure of the intercepts to intended recipients  
or third allegedly involved. The results will be, if possible, as follows: (a) successful  
in every case; (b) in the first case, failure to intercept. The failure  
is not due to failure of the intercepting station being unable to intercept  
the signal(s).

See: Excerpts Edition, Vol. II, Sec. 3, Sect. 1., Item 107

GERLOCZY, F.;BENCZE, B.;SZENASY, J.;KUNCZ, D.

Studies on the vitamin E Barrier of the placenta, Acta med. hung.  
2 no.3-4:413-420 1951. (CLNL 23:2)

1. Of the First Pediatric Clinic and of the Second Gynecological Clinic,  
Budapest University.

GERLOCZY, F.;BARTA, L.

Myositis ossificans progressiva; studies on the interrelation of  
calcium and glucid metabolism. Acta med. hung. 2 no.3-4:541-555 1951.  
(CLML 23:2)

1. Of the First Pediatric Clinic of Budapest University.

GHELCZY, F. 1951

(Dept. of Ped. & Dept. of Obstet., Univ. of Budapest. Med. School)

"Examination of the Vitamin-E Barrier of the Placenta."

Experientia (Basel), 1951 7/11(427-428)  
Abst: Exc. Med. 11, Vol. 5, No. 8, p. 920

BARTA, L.; CSILLAG, I.; GERLOCZY, F.;

Transplantation of hypertrophic parathyroid of a patient  
with Recklinghausen's disease to patient with parathyreoprival tetany. Orv. Hetil. Budap. 92 no.29:929-933  
22 July 1951. (CIML 20:11)

1. Doctors. 2. First Pediatric Clinic (Director — Prof.  
Dr. Pal Kiss Gegesi) and Second Surgical Clinic (Director  
Prof. Dr. Endre Hedri), Budapest Medical University.

GERLOCZY, P.; PARKAS, K.

Hyperparathyroidism in the newborn of a chronic hypoparathyroid mother.  
Acta med. hung. 4 no. 1:73-85 1953. (CLML 24:2)

l. Of the Pediatric Clinic of Budapest University and of the Prosectorium of Uzoki Street Municipal Hospital.

GHRLOCZY, Ferenc;; SCHMIDT, Karoly, (I.sz. Gyermekklinika); SCHOLZ,  
Hagda, (II. sz. Korbonctani Intezet)

Contribution to the study of moniliasis in infants. Gyermekgyogyaszat  
6 no.7:203-210 July 55.

1. A Budapesti Orvostudomanyi Mgyetem I. sz. Gyermekklinikajának  
(Igazgató: dr. Gegesi Kiss Pal egyetemi tanár, akadémikus) és II.  
sz. Korbonctani Intezetenek (igazgató: dr. Haranghy László egyetemi  
tanár) közleménye.

(MONILIASIS, in infant and child  
incidence & pathol.)

GERLOCZY, F., Prof.

Some actual aspects of rickets. Ther. hung. no.3:10-15 1956.

1. First Dept. of Pediatrics (Director: Prof. P. Gegesi Kiss),  
University of Budapest, Medical School.

(RICKETS  
early diag., prev. & ther.)

GERLOCZY, Ferenc, dr.

Current practical problems in rickets. Orv. hetil. 97 no.29:  
785-791 15 July 56.

l. A Budapesti Orvostud. Egyetem I. sz. Gyermekklin. (igaz.:  
Gegeesi-Kiss, Pal dr. egyet. tanar, akadémikus) kozl.  
(RICKETS  
diag. & prev., current problems. (Hun))

EXCERPTA MEDICA 3.c 7 Vol. 11/61 - Article 135 DV

2190. GERLÓCZY F., SCHMIDT K. and SCHOLZ M. 1.Kinderklin. und 2.Inst. für Pathol. Anat., Budapest Med. Univ., Budapest. "Beiträge zur Frage der Moniliasis im Säuglingsalter. Moniliasis in infants ANN. PAEDIAT. (Basel) 1956, 187/1-2 (119-133) Graphs 3 Tables 1 Illus. 4

Since the introduction of antibiotics the incidence of generalized mycoses in particular has increased by 4-6% and has shown a shift to younger age groups. In a 3-month-old child, born prematurely, antibiotic treatment was followed by generalized moniliasis giving rise to mycosis which, via the renal pelvis, caused a fatal issue. The conclusion is reached that mycoses differ from those prevalent before the antibiotic era, not only quantitatively but also qualitatively.

Ozbil - Ankara (XX, 7)

GERLOCZY, Ferenc; BENCZE, Bela; MALIK, Terez; UGRAY, Miklosne

Vitamin metabolism in atrophic infants. Gyermekgyogyaszat 8 no.7-8:  
195-196 July-Aug 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(Igazgató: Gegesi Kiss Pal akadémikus, egyetemi tanár) kozleménye.

(INFANT NUTRITION DISORDERS, metab.  
vitamins (Hun))

(VITAMINS, metab.  
in inf. nutrition disord. (Hun))

BENCZE, Bela; GERLOCZY, Ferenc; MALIK, Terez; UGRAY, Miklosne

Vitamin metabolism in atrophic infants. II. Vitamin E (tocopherol) content of the blood serum in eutrophic infants. Gyermekgyogyaszat 8 no.7-8:197-203 July-Aug 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának (Igazgató: Gegesi Kiss Pal akadémikus, egyetemi tanár) közleménye.  
(VITAMIN E, in blood  
in inf. (Hun))

GERLOCZY, Ferenc; BENCZE, Bela; MALIK, Terez; UGRAY, Miklosne

Vitamin metabolism in atrophic infants. III. Vitamin E (tocopherol) content of the blood serum in atrophic infants. Gyermekgyogyaszat 8 no.7-8:204-217 July-Aug 57.

1. A Budapesti Orvostudomanyi Egyetem sz. Gyermekklinikajának (Igazgató: Gegesi Kiss Pal akadémikus, egyetemi tanár) közleménye.

(INFANT NUTRITION DISORDERS, blood in

vitamin E content, relation to degree of atrophy (Hun))

(VITAMIN E, in blood

in inf. nutrition disord., relation of content to degree of atrophy (Hun))

BENCZE, B.; GERLOCZY, F.; MALIK, T.; UGRAY, M.

Vitamin metabolism of atrophic infants; vitamin E tolerance test of  
atrophic infants. Gyermekgyogyaszat 8 no.9-10:257-264 Sept-Oct 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(Igazgató: Dr. Gegesi Kiss Pál egyetemi tanár, akadémikus) közleménye.  
(INFANT NUTRITION DISORDERS, metab.  
vitamin E tolerance tests in atrophic inf. (Hun))  
(VITAMIN E, metab.  
in atrophy of inf., tolerance tests (Hun))

Géloczy, F.  
GERLOCZY, F.; BENCZE, B.; MALIK, T.; UGRAY, M.

Vitamin metabolism of atrophic infants; vitamin E metabolism of  
atrophic infants in Leiner's disease. Gyermekgyogyaszat 8 no.9-10:  
264-277 Sept-Oct 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(Igazgató: Dr. Gegesi Kiss Pal egyetemi tanár, akadémikus) közleménye.  
(ERYTHRODERMA DESQUAMATIVUM, metab.  
vitamin E tolerance test (Hun))  
(VITAMIN E, metab.  
erythroderma desquamativum, tolerance tests (Hun))

BENZE, B.; GERLOCZY, F.; MALIK, T.; UGRAY, M.

Vitamin metabolism of atrophic infants. VI. Serum vitamin A content  
in atrophic infants. Gyermekgyogyaszat 8 no.11-12:333-343 Nov-Dec 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(Igazgató: Dr. Gegesi Kiss Pal egyetemi tanár, akadémikus) közzémenye.

(VITAMIN A, in blood

in atrophy of inf. (Hun))

(INFANT NUTRITION DISORDERS, blood in

vitamin A content in atrophy (Hun))

GERIOCZY, F.; BENCZE, B.; MALIK, T.; UGRAY, M.

Vitamin metabolism of atrophic infants. VII. Vitamin A tolerance of  
atrophic infants. Gyermekgyogyaszat 8 no.11-12:344-349 Nov-Dec 57.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(Igazgató: Dr. Gegesi Kiss Pál egyetemi tanár, akadémikus) kozlemenye.

(VITAMIN A, metab.  
in atrophy of inf., tolerance tests (Hun))

(INFANT NUTRITION DISORDERS, metab.  
vitamin A tolerance tests in atrophy (Hun))

BENCZE, B.; GERLOCZY, F.; MALIK, T.; UGRAY, M.

Vitamin metabolism of atrophic infants. VIII. Vitamin A metabolism  
in Leiner's disease of infants. Gyermekgyogyasztat 8 no. 11-12: 349-356  
Nov-Dec 57.

1. A Budapesti Orvostudomanyi Egyetem I. sez. Gyermekklinikajának  
(Igazgató: Dr. Gegesi Kiss Pal egyetemi tanár, akadémikus) közleménye.  
(ERYTHRODERMA DESQUAMATIVUM, metab.  
vitamin A (Hun))  
(VITAMIN A, metab.  
in erythroderma desquamativum (Hun))

GERLOCZY, E.; BENCZE, B.; MALIK, T.; UGRAY, M.

Vitamin metabolism in atrophic infants. IX. Vitamin B<sub>1</sub> tolerance test  
in atrophic infants. Gyermekgyogyaszat 9 no.1-3:5-10 Jan-Mar 58.

I. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinika janak  
(Igazgato Dr. Gegesi Kiss Pal egyetemi tanar, akademikus) kozlemenye.

(INFANT NUTRITION DISORDERS, metab.

vitamin B<sub>1</sub> tolerance test in atrophic inf. (Hun))

(VITAMIN B<sub>1</sub>, metab.

in atrophic inf., tolerance tests (Hun))

BENCZE, B.; GERLOCZY, F.; MALIK, T.; UGRAY, M.

Vitamin metabolism in atrophic infants. X. Vitamin C tolerance test  
in atrophic infants. Gyermekgyogyaszat 9 no.1-3:11-16 Jan-Mar 58.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinika janak  
(Ijazgato: Dr. Gegesi Kiss Pal egyetemi tanar, akademikus) kozlemenye.  
(INFANT NUTRITION DISORDERS, metab.

vitamin C tolerance test in atrophic inf. (Hun))

(VITAMIN C, metab.  
in atrophic inf., tolerance tests (Hun))

GERLOCZY, F.; BENCZE, B.; MALIK, T.; UGRAY, E.

Vitamin metabolism in infantile atrophy. Acta med. hung. 12 no.1-2:  
1-83 1958.

1. 1st Department of paediatrics, University Medical School, Budapest.  
(INFANT NUTRITION DISORDERS, metab.  
vitamins in infantile atrophy, clin. studies & review)  
(VITAMINS, metab.  
in infantile atrophy, clin. studies & review)

GERLOCZY, Fr.

Vitamin E metabolism in newborn infants. Cesk. pediat. 13 no.7:607-608  
Aug 58.

l. I. Univ. detska klinika, reeditel prof. Dr. P. Gegesi ml., clen  
Madariske akademie ved.

(INFANT, NEWBORN, metab.

vitamin E (Cz))

(VITAMIN E, metab.

in newborn (Cz))

CERLOCKY, Fr.; BENOCZE, Bele a spoluprac.

Vitamin E metabolism in young infants. Cesk. pediat. 13 no.7:608-609  
Aug 58.

1, I. detska klinika, reditel prof. Dr. Paul Gegeesi Kiss, clen Madarske  
akademie ved, Budapest.  
(VITAMIN E, metab.  
in inf. (Cz))

GERLOCZY, Ferenc, dr.

Pediatric significance of vitamin E. Orv.hetil. 100 no.45:  
1606-1615 N '59.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Gyermekklinikajának  
(igazgató: Gegesi Kiss Pal dr. egyetemi tanár, akadémikus)  
közleménye.

(VITAMIN E physiol.)  
(VITAMIN E DEFICIENCY in inf. & child.)

GERLOCZY, F.; PAP, K.

Contribution to the study of hemihypertrophy. (A propos of 10  
observations on true hemihypertrophy). Acta med. hun. 15 no.1:  
145-174 '60.

1. Iere Clinique de Pediatrie de l'Universite Medicale de Budapest.  
(HYPERSTROPHY AND HYPERPLASIA case reports)

GERLOCZY, Ferenc, dr.; BENCZE, Bela, dr.

Vitamin E deficiency in infants and children. Gyermekgyogaszat  
11 no.5:129-131 My '60.

1. A budapesti Orvostudomanyi Egyetem I. sz. Gyermakklinikajának  
(igazgató: Dr. Gegeci, Kiss Pal akadémikus, egyetemi tanár) közleménye.  
(VITAMIN E DEFICIENCY in inf.& child)

GERLOCZY, Ferenc, dr.; PAP, Kalman, dr.

On hemihypertrophy. Gyermekgyogyaszat 11 no.8:225-242 Ag '60.

1. A Budapesti Orvostudomanyi Egyetem, I. es. Gyermekklinikajának  
(Igazgató: Gegesi Kiss Pal dr. akadémikus, egyetemi tanár)  
közleménye

(HYPERTROPHY AND HYPERPLASIA)  
(ABNORMALITIES)

GERLOCZY, F.; BENCZE, B.; KASSAI, Stefania; BARTA, L.

New data on the protective vascular role of vitamin E in children.  
Acta paediat. acad. sci. Hung. 2 no.3:217-226 '61.

l. Clinique de Pediatrie No. I (Directeur: Fr. P. Gegesi Kiss) de  
l'Universite Medicale de Budapest.

(VITAMIN E therapy)  
(THROMBOPHEBITIS in inf & child)  
(DIABETES MELLITUS in inf & child)  
(SKIN pathol)  
(NECROSIS in inf & child)

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Academic Degrees: [not given]

Affiliation: [not given]

Source: Budapest, Gyermekgyogyász, Vol XII, No 7, Jul 61, p 222

Data: "Gyula SZUTRELY" (Obituary)

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